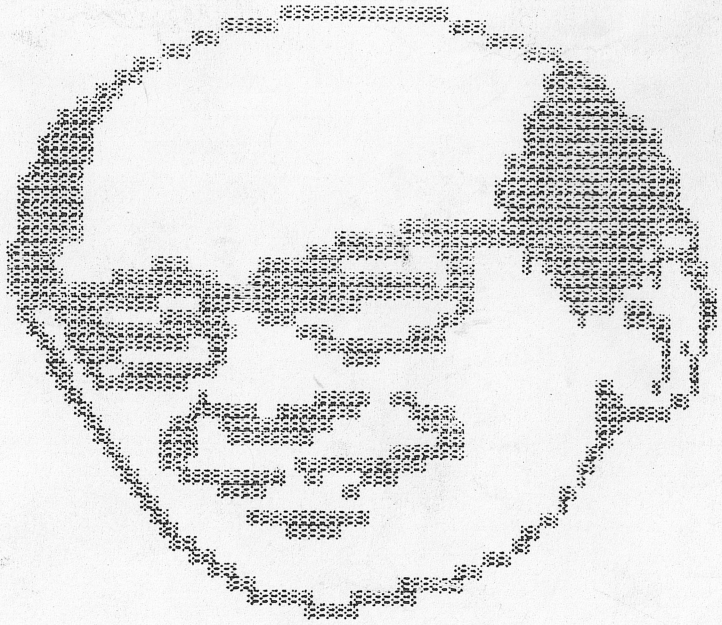
JULY/AUGUST 89 ISSUE # 25

VZ 200/300

HUNTER VALLEY

VZ JOURNAL



SECRETARY--EDITOR

PRODUCED BI-MONTHLY BY H.V.VZ.U.G.

EDITOR'S COMMENTS 25/2

THIS PUBLICATION WAS PREPARED ON A STAR NX 1000 PRINTER USING DAVE MITCHELL'S PATCH 3.3 WITH E & F WORD PROCESSOR. HI & LO-RES SCREEN DUMPS AND LISTINGS WERE DONE USING LARRY TAYLOR'S PRINTER PATCH V1.4 AVAILABLE FROM VSOFTWAREZ WHILE PATCH3.3 IS AVAILABLE FROM HUNTER VALLEY VZ USERS' GROUP.

PAGE NUMBERING - WITH THIS ISSUE I'VE ADOPTED A NEW PAGE NUMBERING SYSTEM. FIRST NUMBER REFERS TO ISSUE NUMBER WHILE SECOND TO PAGE NUMBER.

FRONT COVER - AS I HAD PROBLEMS WITH PLANNED FRONT COVER DESIGN, AT LAST MOMENT I SUBSITUTED MY PICTURE WHICH IS'NT A BAD LIKENESS.

NEW SUBSCRIPTION RATES/CLUB NEWS/APOLOGIES & THANK YOU/ETC. . . . . PAGE 3

HINTS AND TIPS ON INPUT STATEMENT, DISK STORAGE & RESISTOR VALUES . . . PAGE 4

REAL TIME CLOCK BY BOB KITCH . . . . . PAGES 5-7

CONTINUING FROM VECTORS & INTERRUPTS FROM LAST ISSUE BOB PRESENTS AN INTERRUPT DRIVEN REAL TIME CLOCK AND AS USUAL WITH BOB'S PROGRAMS IT'S BEAUTIFULLY LABELLED SO UNDERSTANDING PROGRAM CONSTRUCTION AND FLOW IS EASY.

6502/6510 DISASSEMBLER BY JEREMY LEE . . . . . PAGES 8-10

JEREMY PRESENTS US WITH A UTILITY WHICH WILL CONVERT 6502/6510 C.P.U. CODE IN DATA STATEMENTS FOR POSSIBLE USE BY THE VZ. AS THERE ARE MANY COMPUTERS USING ABOVE C.P.U. THERE WOULD BE MANY PROGRAMS WHICH COULD BE COVERTED.

DIRECTORY LABEL UTILITY ERROR . . . . . PAGE 10

AN ERROR HAS CREPT IN ABOVE PROGRAM IN LAST ISSUE WHICH STOPPED PROGRAM FROM WORKING. DAVE SENDS HIS APOLOGIES AND PRESENTS A REMEDY.

RETRIEVE BY DAVE MITCHELL (ANOTHER DISK UTILITY) . . . . . PAGES 11-12

THE VZ HAS A HABIT OF WIPING DISKS IF YOU LEAVE THEM IN THE DRIVE WITH DOOR CLOSED AT POWER UP OR RESET. DAVE'S UTILITY JUST MIGHT RETRIEVE THEM.

E & F WORD PROCESSOR DARK TO LIGHT SCREEN MODS BY DAVE MITCHELL -- PAGES 12-13

SOME OF OUR SUBSCRIBERS WITH BLACK & WHITE TV'S FOR MONITORS FIND THE WHITE LETTERING ON DARK BACKGROUND WHEN USING WITH E & F W.P. BIT HARD ON THEIR EYES. THANKS TO DAVE THIS SITUATION CAN BE REVERSED.

CUSTOMIZING E & F WORD PROCESSOR'S PRINT MENU BY NEVILLE HUGHES -- PAGES 14-15

NEVILLE PRESENTS TAPE USERS WITH A WAY TO MODIFY THEIR W.PROCESSOR'S PRINT MENU USING A MONITOR. YOU'LL NOTICE ARTICLE IS VERY SIMILIAR TO DISK VERSION.

VZ USER GROUPS & PUBLICATIONS - WANTED TO BUY - CLUB & COMMITTEE . . PAGE 16

NOTE - THERE HAVE BEEN CHANGES TO COMMITTEE, SUBSCRIPTION RATES AND THE CLUB HAS DEMONSTRATIONS PLANNED FOR MEETINGS NOW. SEE PAGE 16 FOR COMING EVENTS.

FOR SALE - PATCH 3.3 - EXTENDED DOS V1.3 - MENU/FILE COPIER . . . . . PAGE 17

ONE OR MORE OF THE ABOVE DISK UTILITIES MIGHT BE JUST WHAT YOU WANT. I HAVE ALL THREE AND FIND THEM ALL VERY USEFULL.

H.V.VZ JOURNAL SUPPLEMENT SOFTWARE LIST COMPILED BY EDDIE TOMES -- PAGES 14-18

EDDIE HAS GONE TO A LOT OF TROUBLE IN COMMPILING A SOFTWARE LIST OF VZ PROGRAMS WHICH WERE AT ONE TIME COMMERCIALLY AVAILABLE. SAD TO SAY, SUCH IS NOT THE CASE ANYMORE AS MANY SOFTWARE SUPPLIERS HAVE FOLDED, BUT ALL IS NOT LOST TAHNKS TO EDDIE AS THERE COULD BE A CENTRAL LIBRARY OF VZ PROGRAMS.

NOTE - THIS SUPPLEMENT IS DESIGNED TO BE REMOVED FROM JOURNAL AND PLACED WITH PREVIOUS SUPPLEMENT AND IS NUMBERED ACCORDINGLY.

COMING ISSUES - DUE TO CIRCUMSTANCES BEYOND MY CONTROL IN LAST FEW MONTHS PLANNED ARTICLES HAVE BEEN POSTPONED AND SHOULD BE BACK TO NORMAL WITH NEXT ISSUE.

NEW SUBSCRIPTIONS RATES ---- 25/3

LAST ISSUE SAW OUR THIRD YEAR OF OPERATION AND IN THAT TIME THE JOURNAL'S PRICE HAS'NT INCREASED ALTHOUGH POSTAL AND OTHER CHARGES HAVE INCREASED SEVERAL TIMES.

IT'S WITH REGRET THAT WE ANOUNCE A PRICE INCREASE FOR THE JOURNAL AS WE WISH TO KEEP BOTH THE CLUB AND JOURNAL VIABLE IN A DIMINISHING MARKET. AS YOU MAY BE AWARE THERE ARE ONLY THREE VZ PUBLICATIONS LEFT WITH BOTH VZ USER AND VZ LINK GOING UNDER.

AS I MENTIONED IN PREVIOUS ISSUE, YOUR SUPPORT EITHER AS A CONTRIBUTOR, SUBSCRIBER OR CLUB MEMBER IS VITAL TO THE SURVIVAL OF VZ USER GROUPS AND PUBLICATIONS AND ONE CAN'T EXIST WITHOUT THE OTHER, SO PLEASE KEEP UP YOUR SUPPORT.

NOTE - SEE PAGE 16 FOR NEW SUBSCRIPTION CHARGES.

CLUB NEWS/MEETINGS ----------

AT OUR ANNUAL MEETING A NEW COMMITTEE WAS ELECTED WITH THREE OLD AND THREE NEW MEMBERS BEING ELECTED. ORGANISED CLUB MEETINGS WERE ONE RESULT OF NEW COMMITTEE IN ACTION WHICH I LONG ADVOCATED. IT'S OUR INTENTION TO HAVE SOME FORM OF DEMONSTRATION AT EACH MEETING FOR MEMBERS INFORMATION. THE LAST COUPLE WERE VERY WELL RECEIVED SO WE MUST BE ON THE RIGHT TRACK AT LAST.

MY THANKS TO OUR NEW TREASURER, GARY BULLEY FOR HELPING OUT WITH THIS ISSUE AND ALSO STARTING WITH THIS ISSUE, GARY WILL BE POSTING OUT JOURNALS WHICH MEANS YOU SHOULD GET THEM EARLIER THAN PREVIOUSLY.

NOTE - SEE PAGE 16 FOR COMING EVENTS AT H.V.VZ U.G. CLUB MEETINGS

APOLOGIES & THANK YOU ----------

MY APOLOGIES ABOUT LAST COUPLE ISSUES WHICH WERE POSTED LATE AND SOME OF YOUR MAIL WHICH I HAVE'NT BEEN ABLE TO ANSWER. ALSO MY SINCERE THANKS FOR YOUR EXPRESSIONS OF SYMPHATY AT MY MOTHER'S PASSING AWAY, AND WISHES FOR MY WIFE'S AND MY OWN RECOVERY.

IT'S MANY MONTHS SINCE I TOUCHED A SOLDERING IRON OR A VZ, EXEPT FOR PRODUCING JOURNAL AND AS A RESULT I'M WAY BEHIND IN PROJECTS AND ARTICLES FOR JOURNAL. NEXT ISSUE SHOULD SEE THINGS RETURNING TO NORMAL AND I THANK YOU FOR BEARING WITH ME.

DISCLAIMER ----------

EVERY EFFORT IS MADE TO ENSURE THE ACCURACY OF INFORMATION CONTAINED WITHIN BE IT GENERAL, TECHNICAL, PROGRAMMING, ETC. NO RESPONSIBILITY CAN BE ACCEPTED BY H.V.VZ.U.G. OR AUTHOR AS A RESULT OF APPLYING SUCH INFORMATION.

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PROGRAMMING BY ROBERT QUINN :-

WHEN USING THE INPUT STATEMENT YOU NORMALLY CANNOT ENTER A COLON (:) OR A COMMA (,). THE COLON OR COMMA, AND ANY TEXT YOU TYPE IN BEYOND, IN A STRING INPUT IS NOT ACCEPTED AND YOU GET THE DREADED ?EXTRA IGNORED MESSAGE. ALL THIS CAN BE AVOIDED BY STARTING YOUR INPUT STRING WITH QUOTES. TYPE IN THE PROGRAM BELOW AND RUN IT. :-

```
10 CLS
20 INPUT" TESTING , & : IN INPUT STRING  ";A$
30 GOTO 20
```

TRY ENETERING IN TURN A COMMA AND A COLON AND PRESSING RETURN AFTER EACH ENTRY AND YOU'LL GET :-

?EXTRA IGNORED

NEXT TYPE IN "TEST:DOES IT WORK?, YES! AND PRESS RETURN

BINGO, IT DOES WORK, THE ?EXTRA IGNORED HAS BEEN DEFEATED.

DOUBLING DISK STORAGE . . . . . .

AS YOU MAY OR MAY NOT KNOW THE REVERSE SIDE OF A DISK CAN BE USED FOR PROGRAM OR DATA STORAGE. YOU'LL HAVE TO CUT A MATCHING NOTCH ON OPPOSITE SIDE OF DISK FIRST OTHERWISE YOU'LL GET DISK WRITE PROTECTED ERROR MESSAGE. YOU CAN BUY A COMMERCIAL DISK NOTCHER AS SOLD BY D. SMITH FOR AROUND $10.00.

THERE IS A CHEAPER ALTERNATIVE. YOU COULD USE SCISSORS OR BETTER STILL PURCHASE A SINGLE HOLE PUNCH FOR AROUND $1.50-$2.00 AVAILABLE FROM MOST DEPARTMENT STORES LIKE K-MART, WOOLWORTHS OR NEWSAGENTS, ETC. WITH THE MONEY YOU SAVE YOU COULD PURCHASE ABOUT 8 DISKS.

USING HOLE PUNCH WILL PRODUCE HALF ROUND CUTOUT WHICH WORKS THE SAME AS THE SQUARE ONE. AS A BONUS SINGLE HOLE PUNCH CAN BE USED ALSO FOR IT'S ORIGINAL DESIGN TO MAKE HOLES IN PRINTOUTS TO BE STORED IN RINGBINDERS. IN OTHER WORDS, TWO FOR PRICE OF ONE.

LSTTL & CMOS RESISTOR VALUES

WHEN DESIGNING SOME OF MY PROJECTS WHOSE CIRCUITS ARE REPRODUCED IN THE JOURNAL INVOLVING LSTTL & CMOS IC'S I KEEP FORGETTING THAT SAME VALUE PULL UP RESISTOR WILL NOT ALLWAYS WORK PROPERLY FOR BOTH AND CAN CAUSE CIRCUIT MALFUNCTION.

LSTTL INPUT - 1K TO +5V FOR UNUSED INPUTS OR DIRECTLY TO GROUND.
LSTTL OUTPUT TO LSTTL INPUT - 3K3-4K7 TO +5V
LSTTL OUTPUT TO CMOS INPUT - 10K-100K TO +5V
CMOS OUTPUT TO LSTTL INPUT - 3K3-4K7 TO +5V

THE ABOVE IS JUST A GUIDE AND MY FAILURE TO OBSERVE PROPER VALUES WITH MIXED IC FAMILIES HAS CAUSED SOME PROJECT BUILDERS TO HAVE FAILURES AND MY SINCERE APOLOGIES TO THEM.

REAL TIME CLOCK BY R.KITCH - 25/5

NOTE - DO NOT ENTER LEADING ZEROES IN LINE NUMBERS AS THEY ARE RESULT OF BASIC PROGRAM TO WORD PROCESSOR FILE CONVERSION FOR USE BY WORD PROCESSOR.

```
00001 '****************************
00002 '***  INTERRUPT  DRIVEN  ***
00003 '***  REAL  TIME  CLOCK  ***
00004 '***  FOR  VZ  COMPUTER  ***
00005 '***    BY  BOB KITCH    ***
00006 '***TIME KEEPING  ROUTINE***
00007 '***    IS COMPLETELY    ***
00008 '***     RELOCATABLE     ***
00009 '****************************
00010 '
00020 GOTO 100
00026 '
00027 '***USEFUL NUMERIC LOADING SUB-ROUTINES.
00028 '
00029 '***CONVERT UNSIGNED TO SIGNED DECIMAL - PASSED IN UD & SD%.
00030 IF UD>32767 THEN SD%=INT(UD-65536) ELSE SD%=INT(UD)
00035 RETURN
00038 '
00039 '***CONVERT UNSIGNED DECIMAL TO MSB & LSB - IN UD, MS%, LS%.
00040 MS%=INT(UD/256):LS%=INT(UD-256*MS%)
00045 RETURN
00048 '
00049 '***CONVERT SIGNED TO UNSIGNED DECIMAL - PASSED IN SD% & UD.
00050 IF SD%<0 THEN UD=SD%+65536 ELSE UD=SD%
00055 RETURN
00098 '
00099 '***PUT UP INTRO MESSAGE.
00100 CLS:PRINT@4,"REAL TIME CLOCK ROUTINE"
00110 PRINT@197,"LOADING MACHINE CODE"
00199 '
00200 '***LOWER TOM TO ENABLE ROUTINE TO BE STORED.
00210 TM=(256*PEEK(30898)+PEEK(30897))-100 :'***RESERVE 99 BYTES.
00220 UD=TM:GOSUB 40:POKE 30898,MS%:POKE 30897,LS%
00230 CLEAR 100                                :'***RESET POINTERS.
00240 S%=0:M%=0:H%=0:SA%=0:MA%=0:HA%=0
00250 UD=0:TM=0:AD=0:SD%=0:MS%=0:LS%=0         :'***INITIALIZE STORAGE
00260 I%=0:J%=0:DV%=0:CS%=0                    :'***BEFORE DIMEN'ING.
00270 DIM VA%(2,23)                            :'***INITIALIZE ARRAY.
00280 TM=256*PEEK(30898)+PEEK(30897)           :'***NEW TOM.
00299 '
00300 '***READ IN TIME KEEPING ROUTINE.
00310 FOR AD=TM+1 TO TM+77
00320    UD=AD:GOSUB 30:READ DV%:POKE SD%,DV%
00330    CS%=CS%+DV%
00340 NEXT AD
00350 IF CS%<>8110 THEN PRINT@293,"CHECKSUM NOT CORRECT";CS%:STOP
00399 '
00400 '***INITIALIZE POINTERS IN VA%().
00410 FOR I%=0 TO 23
00420    READ VA%(0,I%):UD=TM+VA%(0,I%):GOSUB 30:GOSUB 40
00430    VA%(0,I%)=SD%:VA%(1,I%)=LS%:VA%(2,I%)=MS%
00440 NEXT I%
00499 '
00500 '***MODIFY DUMMY ADDRESSES IN TIME KEEPING ROUTINE.
00510 POKE VA%(0,4),VA%(1,0):POKE VA%(0,5),VA%(2,0):'***<KOUNT>
00520 FOR I%= 1 TO 3                           :'***<SEC><MIN><HOUR>
00530    FOR J%=I%*6 TO I%*6+4 STEP 2          :'***3 OCC'ENCES EACH
```

```
00540        POKE VA%(0,J%),VA%(1,I%):POKE VA%(0,J%+1),VA%(2,I%)
00550     NEXT J%
00560 NEXT I%
00570 SA%=VA%(0,1):MA%=VA%(0,2):HA%=VA%(0,3):'ADDR FOR SEC.MIN.HR
00599 '
00600 '***SET UP JUMP ADDRESS IN INTERRUPT VECTOR.
00610 UD=TM+1:GOSUB 40
00620 POKE 30846,LS%:POKE 30847,MS%      :'***BYTES 2 & 3.
00630 'GO TO 20000                :'***DEBUG JUMP TO PRINTER LISTING.
00699 '
00700 '***SET TIME.
00710 PRINT@293,"***ENTER CURRENT TIME."
00720 PRINT@325,"INPUT HOURS";:INPUT DV%
00730 IF DV%<1 OR DV%>12 THEN GOTO 720 ELSE POKE HA%,DV%
00740 PRINT@389,"INPUT MINS ";:INPUT DV%
00750 IF DV%<0 OR DV%>60 THEN GOTO 740 ELSE POKE MA%,DV%
00799 '
00800 '***STEAL INTERRUPT VECTOR.
00810 POKE 30845,195                     :'***JUMP TO TIME ROUTINE.
00899 '
00900 '***DISPLAY TIME ON BOTTOM LINE OF SCREEN.
00910 FOR I%=29120 TO 29151
00920    POKE I%,109
00930 NEXT I%
00940 T$="TIME    ##:##:##"              :'***DISPLAY TEMPLATE.
00950 'CLS                               :'***REMOVE REM IF REQ'D.
00960 S%=PEEK(SA%):M%=PEEK(MA%):H%=PEEK(HA%)
00970 PRINT@484,USING T$;H%,M%,S%;
00980 GOTO 960
00999 '
02000 '***TIME KEEPING ROUTINE***
02010 '***ALL ADDRESSES SET TO 255 ARE DUMMY PARAMETERS AND ARE
02020 '***RESET FROM BASIC.
02030 '***REGISTERS USED AF, BC, HL.
03000 '
03010 '                    ***COUNT DOWN SECONDS.
03020 DATA 033,255,255:'     LD HL,KOUNT
03030 DATA 053         :'    DEC(HL)
03040 DATA 192         :'    RET NZ
03050 '                    ***SECONDS ROUTINE.
03060 DATA 054,050     :'    LD(HL),50
03070 DATA 058,255,255:'     LD A,(SEC)
03080 DATA 060         :'    INC A
03090 DATA 254,060     :'    CP 60
03100 DATA 040,005     :'    JR Z,L1
03110 DATA 050,255,255:'     LD(SEC),A
03120 DATA 024,056     :'    JR L4
03130 '                    ***MINUTES ROUTINE.
03140 DATA 033,255,255:' L1 LD HL,SEC
03150 DATA 054,000     :'    LD(HL),0
03160 DATA 058,255,255:'     LD A,(MIN)
03170 DATA 060         :'    INC A
03180 DATA 254,060     :'    CP 60
03190 DATA 040,005     :'    JR Z,L2
03200 DATA 050,255,255:'     LD(MIN),A
03210 DATA 024,038     :'    JR L4
03220 '                    ***HOUR ROUTINE.
03230 DATA 033,255,255:' L2 LD HL,MIN
03240 DATA 054,000     :'    LD(HL),0
03250 DATA 001,000,001:'     LD BC,256
```

```
03260 DATA 033,042,000:'     LD HL,42
03270 DATA 205,092,052:'     CALL 345CH
03280 DATA 058,255,255:'     LD A,(HOUR)
03290 DATA 060         :'    INC A
03300 DATA 254,013     :'    CP 13
03310 DATA 040,005     :'    JR Z,L3
03320 DATA 050,255,255:'     LD(HOUR),A
03330 DATA 024,011     :'    JR L4
03340 '                   ***HOUR RESET ROUTINE.
03350 DATA 033,255,255:' L3 LD HL,HOUR
03360 DATA 054,001     :'    LD(HL),1
03370 DATA 024,004     :'    JR L4
03380 DATA 000         :'    DS KOUNT
03390 DATA 000         :'    DS SEC
03400 DATA 000         :'    DS MIN
03410 DATA 000         :'    DS HOUR
03420 '                   ***SCREEN UPDATE ROUTINE HERE.
03430 DATA 201         :' L4 RET
03999 '
04000 '***OFFSETS FOR PARAMETER STORAGE ABOVE ROUTINE.
04010 DATA 73          :'KOUNT
04020 DATA 74          :'SEC
04030 DATA 75          :'MIN
04040 DATA 76          :'HOUR
04200 '***OFFSETS FOR PARAMETERS IN MACHINE CODE ROUTINE.
04210 DATA 2,3         :'<KOUNT>
04220 DATA 9,10        :'<SEC>
04230 DATA 17,18       :'<SEC>
04240 DATA 22,23       :'<SEC>
04250 DATA 27,28       :'<MIN>
04260 DATA 35,36       :'<MIN>
04270 DATA 40,41       :'<MIN>
04280 DATA 54,55       :'<HOUR>
04290 DATA 62,63       :'<HOUR>
04300 DATA 67,68       :'<HOUR>
04310 STOP
04999 '
09999 '***UPDATE DISK FILE.
10000 ERA"RTCLOCK":SAVE"RTCLOCK"
10010 STOP
19999 '
20000 '***DEBUG DUMP TO PRINTER.
20010 '***TO ACTIVATE, TAKE OUT REMARK IN LINE#630.
20020 LPRINT"DEBUG DUMP FROM REAL TIME CLOCK":LPRINT
20030 LPRINT"TOM=",TM:LPRINT
20040 LPRINT"INTERRUPT VECTOR",PEEK(30846),PEEK(30847):LPRINT
20050 LPRINT"PARAMETERS"
20060 FOR I%=0 TO 3
20070    LPRINT I%,VA%(0,I%),VA%(1,I%),VA%(2,I%)
20080 NEXT I%:LPRINT
20090 LPRINT"POINTERS IN VA()"
20100 FOR I%=4 TO 23
20110    LPRINT I%,VA%(0,I%),VA%(1,I%),VA%(2,I%)
20120 NEXT I%:LPRINT
30000 END
```

6502 DISASSEMBLER BY J.LEE 25/8

I SAW A MACHINE CODE PROGRAM FOR AN APPLE A WHILE AGO AND I WANTED TO KNOW HOW IT WORKED TO MODIFY IT FOR THE Z-80. THE MACHINE CODE WAS IN DATA STATEMENTS IN A BASIC LOADER PROGRAM AND I COULDN'T BE BOTHERED DISASSEMBLING IT BY HAND. SO I WROTE THIS PROGRAM TO DO IT FOR ME. YOU SIMPLY TYPE THE CODE IN FROM LINE 9000 ON ENDING IT WITH A -1 TO TELL THE COMPUTER WHEN IT'S FINISHED.

THE PROGRAM IS SET UP TO DISASSEMBLE 6502/6510 MACHINE CODE, BUT WITH A LITTLE BIT OF EFFORT CAN BE MODIFIED TO DISASSEMBLE THE CODE OF ANY SIMPLE MICROPROCESSOR. THE Z-80, 8086, AND A FEW OTHERS ARE OUT BECAUSE THEY HAVE PREFIXES TO DO THINGS LIKE MUCKING AROUND WITH THE IX AND IY REGISTERS AND THE PROGRAM JUST CAN'T HANDLE THAT. MODIFYING THE PROGRAM SHOULD BE EASY FOR ANYONE COMPETENT IN BASIC.

BY THE WAY, IF YOU'RE WONDERING WHAT YOU CAN USE THE PROGRAM FOR, REMEMBER THAT THE 6502/6510 IS IN COMPUTERS LIKE THE VIC-20, THE COMMODORE 64,128 ETC, THE BBC, ORIC, ATARI COMPUTERS AND MORE. THESE COMPUTERS MIGHT HAVE A FEW IDEAS THAT MIGHT BE WORTH PUTTING ON THE VZ.

```
10   CLEAR 100
100  GOSUB 7000
110  GOSUB 1000
120  GOSUB 2000
130  INPUT" RETURN TO BASIC (Y/N)";A$:IFA$="Y",END
140  GOTO 110
1000 CLS:PRINT"[illegible]"
1001 REM  ^^ PUT TITLE THERE
1010 PRINT@96," OUTPUT TO SCREEN OR PRINTER     (S,P)
1020 INPUTA$
1030 PRINT@160,"                    "
1031 PRINT@96," OUTPUT IN HEX OR DEC.           (H,D)
1032 INPUTA$
1033 IFA$="H",HD=1ELSEHD=0
1034 PRINT@160,"                    "
1040 IFA$="P",OD=1 ELSE OD=0
1050 PRINT@96," WHERE DOES CODE BEGIN          (IN DECIMAL )"
1060 INPUT SA
1070 RETURN
2000 DA=0:NA=0:
2010 D=D%(DA):IFD=-1,RETURN
2012 OP=0
2015 FORX=1TO256:IFD=D1(X),OP=X:X=256
2020 NEXT
2025 AM=D2(OP)
2030 IFOP=0,PRINT" CANNOT CONTINUE, NO."D"NOT FOUND.":GOSUB3000
2040 NN=SA+DA:GOSUB4300:GOSUB 2600
2045 P$=P$+"     "+D3$(OP)+"  ":NA=DA+A1(AM)
2050 IFA2(AM)=1,P$=P$+"("
2060 P$=P$+A4$(AM)
2070 IFA3(AM)=1,GOSUB 2700
2071 IFA3(AM)=2,GOSUB 2800
2072 IFA3(AM)=3,GOSUB 2900
2080 IFA2(AM)=1,P$=P$+")"
2090  POKE30876,OD
2100 PRINTP$:P$="":
2110 DA=NA
2500 GOTO 2010
```

```
2600 NN=D%(DA):GOSUB 4200
2605 S$="     ":P$=P$+" "
2610 IFA3(AM)>0,NN=D%(DA+1):GOSUB 4200 ELSE P$=P$+S$
2615 P$=P$+" "
2620 IFA3(AM)=1,NN=D%(DA+2):GOSUB 4200 ELSEP$=P$+S$
2650 RETURN
2700 NN=D%(DA+1)+D%(DA+2)*256:GOSUB 4300   :RETURN
2800 NN=D%(DA+1):GOSUB 4200:RETURN
2900 NN=D%(DA+1):IFNN>128,NN=NN-256
2910 GOSUB 4200   :RETURN
3000 END
4000 REM DEC-HEX (0-FF)
4010 H1=INT(HN/16):H2=HN-H1*16+48:H1=H1+48:IFH1>57,H1=H1+7
4020 IFH2>57,H2=H2+7
4030 HN$=CHR$(H1)+CHR$(H2)
4040 RETURN
4100 REM DEC-HEX (0-FFFF)
4110 H3=INT(HN/256):H4=HN-H3*256:HN=H4:GOSUB 4000:H9$=HN$
4120 HN=H3:GOSUB 4000:HN$=HN$+H9$:RETURN
4200 REM NUMBER CONVERT 1 BYTE
4210 IF SGN(NN)=-1,NG$="-":NN=ABS(NN) ELSE NG$=" "
4220 IFHD=1,HN=NN:GOSUB4000:P$=P$+NG$+HN$+" ":RETURN
4230 P$=P$+NG$+MID$(STR$(NN)+"   ",2,3):RETURN
4300 REM NUM. CONVERT (0-65536)
4310 IF HD=1,HN=NN:GOSUB 4100:P$=P$+HN$:RETURN
4320 P$=P$+MID$(STR$(NN)+"     ",2,5):RETURN
7000 DIM D1(256),D2(256),D3$(256),A1(8),A2(8),A3(8),A4$(8)
7010 DIM D%(5000)
7020 RESTORE
7050 READ A,B,C$:L=L+1:IFA=256,7060
7055 D1(L)=A:D2(L)=B:D3$(L)=C$:GOTO 7050
7060 READ AM
7070 FORX=1TOAM:READA1(X),A2(X),A3(X),A4$(X):NEXT
7100 REM READ DATA
7105 L=0
7110 READ D:D%(L)=D:L=L+1:IFD<>-1,7110
7200 RETURN
7210 :
8000 DATA 105,1,ADC
8001 DATA 109,2,ADC
8002 DATA 101,3,ADC
8003 DATA 125,4,ADC
8004 DATA 121,5,ADC
8005 DATA 144,7,BCC
8006 DATA 176,7,BCS
8007 DATA 240,7,BEQ
8008 DATA  48,7,BMI
8009 DATA 208,7,BNE
8010 DATA  16,7,BPL
8011 DATA  80,7,BVC
8012 DATA 112,7,BVS
8013 DATA  24,6,CLC
8014 DATA 201,1,CMP
8015 DATA 205,2,CMP
8016 DATA 197,3,CMP
8017 DATA 221,4,CMP
8018 DATA 217,5,CMP
8019 DATA 224,1,CPX
8020 DATA 236,2,CPX
8021 DATA 228,3,CPX
8022 DATA 192,1,CPY
8023 DATA 204,2,CPY
8024 DATA 212,3,CPY
8025 DATA 206,2,DEC
8026 DATA 198,3,DEC
8027 DATA 222,4,DEC
8028 DATA 202,6,DEX
8029 DATA 238,2,INC
8030 DATA 230,3,INC
8031 DATA 254,4,INC
8032 DATA 232,6,INX
8033 DATA 200,6,INY
8034 DATA  76,2,JMP
8035 DATA  32,2,JSR
8036 DATA 169,1,LDA
8037 DATA 173,2,LDA
8038 DATA 165,3,LDA
8039 DATA 189,4,LDA
8040 DATA 185,5,LDA
8050 DATA 162,1,LDX
8060 DATA 174,2,LDX
8061 DATA 166,3,LDX
8062 DATA 190,5,LDX
8063 DATA 160,1,LDY
8064 DATA 172,2,LDY
8065 DATA 164,3,LDY
```

```
8066 DATA 188,4,LDY
8067 DATA  96,6,RTS
8068 DATA 233,1,SBC
8069 DATA 237,2,SBC
8070 DATA 229,3,SBC
8071 DATA 253,4,SBC
8072 DATA 249,5,SBC
8073 DATA  56,6,SEC
8074 DATA 141,2,STA
8075 DATA 133,3,STA
8076 DATA 157,4,STA
8077 DATA 153,5,STA
8078 DATA 142,2,STX
8079 DATA 134,3,STX
8080 DATA 140,2,STY
8081 DATA 132,3,STY
8082 DATA 170,6,TAX
8083 DATA 168,6,TAY
8084 DATA 138,6,TXA
8085 DATA 152,6,TYA
8086 DATA 136,6,DEY
8087 DATA 181,1,???
8200 DATA 256,0,0
8300 DATA 7  :' NO. OF MODES
8301 REM BYTES,BRAC,ADDR/DATA/2'S COMP,STRING
8302 DATA 2,0,2,""
8303 DATA 3,1,1,""
8304 DATA 2,1,2,""
8305 DATA 3,1,1,"X+"
8306 DATA 3,1,1,"Y+"
8307 DATA 1,0,0,""
8308 DATA 2,0,3,""
9000 REM"[illegible]
9001 REM  END WITH "DATA -1"
9010 DATA 160,2,162,0,185,6,0,240,1,232,136,16
9020 DATA 247,189,79,3,141,45,3,142,85,3,162,2
9030 DATA 181,6,208,5,172,85,3,208,3,32,44,3
9040 DATA 202,16,241,198,9,208,235,96,160,0,140,83
9050 DATA 3,160,255,140,84,3,168,240,3,141,48,192
9060 DATA 206,84,3,208,3,206,83,3,136,192,255,208
9070 DATA 243,172,83,3,208,232,96
9080 DATA -1
```

DIRECTORY LABEL LISTING ERROR --

DAVE SENDS HIS APOLOGIES ABOUT THE ERROR WHICH CREPT IN AND PROVIDES A FIX WHICH WILL GET THE PROGRAM UP AND RUNNING. THE PROBLEM WAS IN LINE 40, FIRST BASIC LISTING, NOT SECOND. LINE 40 COULD BE LEFT OUT OR A CORRECTION MADE AS SHOWN.

```
40 FOR I=31524 TO 31530:POKE I,0:NEXT:LIST
```

ABOVE IS LINE 40 AS IT APPEARED IN ISSUE # 24 WHILE BELOW IS CORRECTED LINE 40.

```
40 FOR I=31524 TO 31530:POKE I,0:NEXT:POKE 31465,37:LIST
```

AS THE DIR ALLOWS ONLY 8 CHARACTERS FOR FILE NAME IT DOES'NT ALLOW FOR MUCH INFORMATION TO BE STORED ABOUT PROGRAM, SO I USE THE DIRECTORY LABEL UTILITY EXTENSIVELY TO LABEL MY DISKS WITH DATE, PROGRAM INFORMATION, ETC.

RETRIEVE BY DAVE MITCHELL - 25/11

(ANOTHER DISK UTILITY)

AFTER WIPING OUT A FEW DISKS BY LEAVING THE DRIVE DOOR CLOSED WHEN I RESET THE VZ, I SOON LEARNT TO OPEN THE DOOR (PLACING WRITE PROTECT LABELS ON DISKS WILL ALSO STOP THE PROBLEM) HOWEVER I FOUND THAT MOSTLY, THE ONLY TRACK THAT WAS WIPED OUT WAS TRACK ZERO AND TRACK 1 TO TRACK 39 WERE INTACT.

ALL I HAD TO DO WAS WRITE A SMALL ROUTINE TO READ FROM DISK SO I COULD RETRIEVE THOSE PROGRAMS THAT WERE LOST. TO RETRIEVE THE PROGRAMS YOU MUST KNOW THE :-

START TRACK ON DISK (IN HEX [XX])
START SECTOR ON DISK (IN HEX [XX])
START ADDRESS OF THE PROGRAM IN MEMORY (IN HEX [XXXX])
AND THE FILENAME AND FILETYPE.

SOME OF YOU WOULD ASK HOW DO WE FIND THEM OUT ??
ALL THIS INFORMATION WAS STORED ON TRACK ZERO (WHICH WAS WIPED OUT) , OR AS YOU KNOW IT - THE DIRECTORY

TRACK 0, SECTOR 0 TO 14 IS USED AS THE DIRECTORY EACH SECTOR HOLDS 8 ENTRIES AND 1 DISK CAN HOLD A MAXIMUM OF 120 FILENAMES NOT 112 AS THE TEC. MANUAL STATES.

EACH ENTRY CONTAINS 16 BYTES OF INFORMATION :-

FILETYPE	1 BYTE
DELIMITOR (:)	1 BYTE
FILENAME	8 BYTES
START TRACK	1 BYTE
START SECTOR	1 BYTE
START ADDRESS	2 BYTES
END ADDRESS	2 BYTES

THE NORMAL DIR COMMAND DOES NOT SHOW THE START, END ADDRESS OR START TRACK, SECTOR. YOU WILL REQUIRE EXTENDED DOS COMMANDS AS WRITTEN BY LARRY TAYLOR OR MYSELF. THERE MAY BE OTHER AUTHORS OF EXTENDED DOS/BASICS THAT I AM NOT AWARE OF.
AGAIN TAKE CARE TYPING IN THE BASIC LOADER AS YOU CAN SEE THE DATA STATEMENTS ARE GROWING LONGER WITH EACH ARTICLE.

ONCE YOU HAVE THE M/C PROGRAM SAVED ON DISK BRUN IT. IF A DISK ERROR OCCURS THE PROGRAM WILL RETURN TO BASIC TYPING -

PRINTUSR(0) WILL RESTART THE PROGRAM.

```
00010 FORI=-28672TO-28188:READA:POKEI,A:B=B+A:NEXT
00020 IFB<>46316THENPRINT"ERROR IN DATA":END
00030 BSAVE"RETRIEVE",9000,91E6
00100 DATA33,6,144,34,142,120,33,229,145,34,97,145,33,99,145,205
00110 DATA20,145,205,35,145,253,119,18,33,123,145,205,20,145,205
00120 DATA35,145,253,119,17,33,146,145,205,20,145,205,35,145,50
00130 DATA96,145,205,35,145,50,95,145,205,84,145,205,53,64,183
00140 DATA194,14,64,253,110,49,253,102,50,237,91,97,145,1,126,0
00150 DATA237,176,237,83,97,145,126,183,40,10,253,119,18,35,126
00160 DATA253,119,17,24,216,27,26,183,40,251,19,19,19,237,83,249
00170 DATA120,33,229,145,34,164,120,34,97,145,205,11,64,251,33
00180 DATA169,145,205,20,145,62,32,18,253,229,209,19,1,8,0,237
```

```
00190 DATA176,33,187,145,205,117,43,205,73,0,254,13,40,249,253
00200 DATA119,9,205,58,3,58,175,122,183,32,250,243,205,80,52,205
00210 DATA84,145,205,68,64,183,194,14,64,205,84,145,205,44,64,254
00220 DATA2,40,8,183,194,14,64,62,13,24,248,19,19,213,26,19,79
00230 DATA26,19,71,26,19,111,26,103,183,237,66,237,75,95,145,209
00240 DATA121,18,19,120,18,19,9,253,126,9,254,84,32,1,35,125,18
00250 DATA19,124,18,205,50,64,183,194,14,64,205,11,64,251,33,205
00260 DATA145,205,117,43,205,73,0,254,89,202,6,144,33,233,122,34
00270 DATA164,120,205,77,27,195,25,26,205,117,43,205,58,5,56,236
00280 DATA26,254,32,40,231,35,201,6,2,17,0,0,126,254,48,56,31,254
00290 DATA58,56,10,254,65,56,23,254,71,48,19,214,7,230,15,72,6
00300 DATA4,203,35,203,18,16,250,179,95,65,215,16,220,120,254,2
00310 DATA210,151,25,123,201,243,205,8,64,1,50,0,205,56,64,201
00320 DATA0,0,0,0,31,32,69,78,84,69,82,32,83,84,65,82,84,32,84
00330 DATA82,65,67,75,32,32,32,58,0,32,69,78,84,69,82,32,83,84
00340 DATA65,82,84,32,83,69,67,84,79,82,32,32,58,0,32,69,78,84
00350 DATA69,82,32,83,84,65,82,84,32,65,68,68,82,69,83,83,32,58
00360 DATA0,32,69,78,84,69,82,32,70,73,76,69,78,65,77,69,32,58
00370 DATA0,32,69,78,84,69,82,32,70,73,76,69,84,89,80,69,32,58
00380 DATA0,13,32,65,78,79,84,72,69,82,32,80,82,79,71,82,65,77
00390 DATA32,89,47,78,32,58,0
```

W.P. SCREEN MOD BY D.MITCHELL

MODIFICATION TO THE E&F. WORD PROCESSOR FOR LIGHT SCREEN.

WHAT STARTED OUT TO BE JUST A COUPLE OF POKES HAS BLOWN INTO A FULL SCALE MODIFICATION. TO MAKE IT EASIER FOR YOU I HAVE WRITTEN ANOTHER BASIC LOADER.

YOU CAN ALSO CHANGE THE PAGE SKIP (CTRL P) & BLOCK MARKERS (CTRL X) TO THE UP ARROW LEFT IF YOU WISH.

UP ARROW = 95 (INVERSE UP ARROW = 31)
LEFT ARROW = 94 (INVERSE LEFT ARROW = 30)

THE ADDRESS FOR PAGE SKIP (CTRL P) IS 32015
THE ADDRESS FOR BLOCK MARKER (CTRL X) IS 31961

POKE THE ADDRESSES WITH WHICH ONE YOU WOULD LIKE BUT MAKE SURE YOU DON'T POKE BOTH ADDRESSES WITH THE SAME NUMBER. YOU CAN TRY IT OUT WHILE IT IS IN MEMORY BY :-

```
POKE 30862,128:POKE 30863,123:PRINTUSR(0)
```

TYPE IN THE BASIC LOADER SAVE AND THEN RUN, YOU WILL HAVE A BINARY COPY OF THE MODIFICATION. BLOAD THE WORDPROCESSOR AND THEN BLOAD THE BINARY COPY.

NOW YOU HAVE THREE POKES TO DO :-

```
POKE -27566,205:POKE -27565,62:POKE -27564,149
```

THE MODIFICATION IS NOW COMPLETE ALL THAT HAS TO BE DONE IS SAVE THE NEW VERSION OF WORD PROCESSOR.

```
BSAVE"WORDPROC",7B80,95A0
```

BRUN"WORDPROC" AND TEST THE NEW VERSION

NOTE - DO NOT ENTER LEADING ZEROES IN LINE NUMBERS AS THEY ARE RESULT OF BASIC PROGRAM TO WORD PROCESSOR FILE CONVERSION.

```
00001 ;WORD PROCESSOR            - SOURCE CODE LISTING AT LEFT
00002 ;MOD. FOR LIGHT SCREEN     - BASIC LISTING BELOW
00003 ;ORG. 953EH
00004 ;05:02:89
00005       XOR  A
00006       LD   (7818H),A
00007       LD   A,60H
00008       LD   (7C3CH),A
00009       LD   (7CF2H),A
00010       LD   (898AH),A
00011       LD   DE,8DE0H
00012       LD   HL,NO1
00013       LD   BC,6
00014       LDIR
00015       LD   DE,7A29H
00016       LD   HL,NO2
00017       LD   BC,23
00018       LDIR
00019       LD   A,6FH
00020       LD   (8D32H),A
00021       LD   (8D41H),A
00022       LD   (8D50H),A
00023       LD   (8D5FH),A
00024       LD   A,70H
00025       LD   (8D6DH),A
00026       LD   (8061H),A
00027       LD   (809AH),A
00028       LD   HL,7A2EH
00029       LD   (7F9DH),HL
00030       RET
00031 NO1   JP   7A29H
00032       NOP
00033       SET  6,A
00034 NO2   RES  5,A
00035       RES  6,A
00036       RET
00037       CALL 8DDCH
00038       CP   40H
00039       RET  Z
00040       CP   1FH
00041       JR   NC,X1
00042 X0    SET  6,A
00043       RET
00044 X1    RES  6,A
00045       RES  7,A
00046       RET
```

```
00010 FORI=38206TO38303:READA:POKEI-65536,A:B=B+A:NEXT
00020 IFB<>11406THENPRINT"ERROR IN DATA":END
00030 IFPEEK(16384)<>170THENPRINT"NO DISK DRIVE":END
00040 BSAVE"WP.MOD",953E,95A0
00100 DATA175,50,24,120,62,96,50,60,124,50,242,124,50,138,137,17
00110 DATA224,141,33,131,149,1,6,0,237,176,17,41,122,33,137,149
00120 DATA1,23,0,237,176,62,111,50,50,141,50,65,141,50,80,141,50
00130 DATA95,141,62,112,50,109,141,50,97,128,50,154,128,33,46,122
00140 DATA34,157,127,201,195,41,122,0,203,247,203,175,203,183,201
00150 DATA205,220,141,254,64,200,254,31,48,3,203,247,201,203,183
00160 DATA203,191,201
```

CUSTOMIZING W.P. BY N.HUGHES 25/14

IN ISSUE # 21, PAGES 8-9, DAVE BOYCE HAS SHOWN HOW TO MODIFY THE E & F TAPE WORD PROCESSOR'S PRINT MENU TO DEFAULTS OF YOUR OWN CHOSING. THE PROCEDURE DESCRIBED NEEDED A DISK DRIVE TO CARRY OUT WHICH LEFT TAPE USERS IN THE COLD.

THE REASON WAS THAT WHEN E & F W.P. IS CLOADED FROM TAPE IT AUTORUNS AND MODS CAN'T BE CARRIED OUT. THANKS TO NEVILLE HUGHES TAPE USERS CAN ALSO DO THE MODS NOW, BUT WILL REQUIRE A MONITOR PROGRAM LIKE W.OBRIST'S MONITOR/DEBUGGER. AND NOW TO THE MODS. TYPE IN AND CSAVE TO TAPE THE FOUR LINE MEMORY PEEK PROGRAM.

```
00010 CLS:PRINT:FORL=-27610TO-27599:PRINTTAB(10)L;
00020 PRINTUSING"## ";PEEK(L);:IFPEEK(L)<32THENPRINT:GOTO40
00030 PRINTCHR$(PEEK(L))
00040 NEXT
```

AT BOTTOM OF PAGE THERE ARE FOUR SCREEN DUMPS, TWO OF PRINT MENU AND TWO OF WP-PEEK PROGRAM IN ACTION. THE TWO LEFT ONES ARE BEFORE THE MODS WHILE THE TWO RIGHT ONES ARE AFTER THE MODS.

NEXT CLOAD OR CRUN W.OBRIST'S MONITOR PROGRAM. WHEN THE PROMPT APPEARS 'M >' TYPE IN 'L' AND PRESS RETURN MAKING SURE YOU HAVE W.P. TAPE IN YOUR DATASSETTE AND PLAY KEY HAS BEEN PRESSED FIRST. WHEN LOADED YOU SHOULD SEE THE FOLLOWING INFORMATION :-

```
7B80  -  REM START ADDRESS OF W.P. IN MEMORY
957F  -  REM END   ADDRESS OF W.P. IN MEMORY
19FF  -  REM  LENGTH  OF  PROGRAM  IN MEMORY
M >
```

ENTER 'B' AND PRESS RETURN WHICH WILL RETURN YOU TO BASIC.

CRUN"WP-PEEK" AND YOU SHOULD SEE ON THE SCREEN A DISPLAY AS PER BOTTOM LEFT SCREEN DUMP PROVIDED YOUR W.P. HAS'NT BEEN MODIFIED.

```
PRINT TEXT
==========

SCREEN OR PRINTER (S/P)   ?P
RIGHT-JUSTIFY (Y/N)       ?Y
PAGE WIDTH (20-99)        ?31
LEFT MARGIN (0-80)        ?00
PAGE LENGTH (10-99)       ?62
INTER-PAGE LENGTH (0-9)   ?4
AUTO-NEXT-PAGE (Y/N)      ?Y
PAGE NUMBERING (Y/N)      ?N
FIRST PAGE NUMBER (1-99)  ?01
SUPRESS FINAL F-F (Y/N)   ?N
DOUBLE SPACING (Y/N)      ?N
NUMBER OF COPIES (1-9)    ?1
```

```
PRINT TEXT
==========

SCREEN OR PRINTER (S/P)   ?S
RIGHT-JUSTIFY (Y/N)       ?Y
PAGE WIDTH (20-99)        ?75
LEFT MARGIN (0-80)        ?10
PAGE LENGTH (10-99)       ?62
INTER-PAGE LENGTH (0-9)   ?4
AUTO-NEXT-PAGE (Y/N)      ?Y
PAGE NUMBERING (Y/N)      ?N
FIRST PAGE NUMBER (1-99)  ?01
SUPRESS FINAL F-F (Y/N)   ?N
DOUBLE SPACING (Y/N)      ?N
NUMBER OF COPIES (1-9)    ?1
```

```
-27610 80 P
-27609 89 Y
-27608 31
-27607  0
-27606 62 >
-27605  4
-27604 89 Y
-27603 78 N
-27602  1
-27601 78 N
-27600 78 N
-27599  1
```

```
-27610 83 S
-27609 89 Y
-27608 75 K
-27607 10
-27606 62 >
-27605  4
-27604 89 Y
-27603 78 N
-27602  1
-27601 78 N
-27600 78 N
-27599  1
```

THE NUMBERS ON THE LEFT REPRESENT MEMORY LOCATIONS OF THE PRINT MENU DEFAULTS, NEXT THE ASCII NUMBERS FOLLOWED BY ALPHABETIC EQUIVALENTS. KNOWING THE MEMORY LOCATIONS WE CAN POKE THE NEW DEFAULTS IN, IT'S AS EASY AS THAT. AND NOW TO THE MODS AND WE'LL TAKE EACH DEFAULT IN TURN.

SCREEN OR PRINTER (S/P) ?P
POKE -27610,80 FOR PRINTER - POKE -27610,83 FOR SCREEN.

RIGHT-JUSTIFY (Y/N) ?Y
POKE -27609,89 FOR YES - POKE -27609,78 FOR NO

PAGE WIDTH (20-99) ?31
POKE -27608,N - N=20 TO 99 - YOUR CHOICE

LEFT MARGIN (0-80) ?00
POKE -27607,N - N= 0 TO 80 - YOUR CHOICE

PAGE LENGTH (10-99) ?62
POKE -27606,N - N=10 TO 99 - YOUR CHOICE

INTER-PAGE LENGTH (0-9) ?4
POKE 27605,N - N= 0 TO 9 - YOUR CHOICE

AUTO-NEXT-PAGE (Y/N) ?Y
POKE -27604,89 FOR YES - POKE -27604,78 FOR NO

PAGE NUMBERING (Y/N) ?N
POKE -27603,89 FOR YES - POKE -27603,78 FOR NO

FIRST PAGE NUMBER (1-99) ?01
POKE -27602,N - N= 1 TO 99 - YOUR CHOICE

SUPPRESS FINAL F-F (Y/N) ?N
POKE -27601,89 FOR YES - POKE -27601,78 FOR NO

DOUBLE SPACING (Y/N) ?N
POKE -27600,89 FOR YES - POKE -27600,78 FOR NO

NUMBER OF COPIES (1-9) ?1
POKE -27599,N - N= 1 TO 9 - YOUR CHOICE

WELL THAT COVERS ALL THE DEFAULTS. ONLY CHANGE THE DEFAULTS YOU REQUIRE. TYPE IN RUN AND PRESS RETURN AND YOU SHOULD GET A SCREEN DISPLAY WITH YOUR NEW DEFAULTS. DOUBLE CHECK TO MAKE SURE THEY ARE CORRECT AND IF NOT REPEAT PROCESS ON THOSE THAT ARE NOT.

BE VERY CAREFULL WHEN POKING NUMBERS AS A POKE TO THE WRONG MEMORY LOCATION CAN CORRUPT W.P. IF EVERYTHING IS OK THEN IT'S TIME TO SAVE MODIFIED W.P. TO TAPE USING THE FOLLOWING FORMAT :-

ENTER PRINT USR(0) <RET> - AND YOU'LL BE BACK IN THE MONITOR.

ENTER S 7B80 957F B "MOD-WP" - START DATASSETTE WITH NEW TAPE AND PRESS RETURN AND MODIFIED W.P. WILL BE SAVED TO TAPE.

ALL THAT REMAINS NOW IS TO TEST IT OUT. RESET THE VZ AND CRUN YOUR MODIFIED W.P. AND SELECT PRINT MENU AND THE DEFAULTS SHOULD BE AS PER YOUR SPECS. EVEN THOUGH THE MODS ARE MINOR THE W.P. PRINT MENU IS MUCH EASIER TO USE.

VZ USER GROUPS/PUBLICATIONS-25/16

CONTRIBUTIONS TO THE HUNTER VALLEY VZ JOURNAL :-

IF YOU ARE THINKING OF CONTRIBUTING TO THE JOURNAL THE PREFERED FORMAT IS BASIC LISTINGS, WORD PROCESSOR OR SOURCE CODE FILES ON TAPE OR DISK. FILES FROM THE FOLLOWING WORD PROCESSORS CAN BE ACCEPTED :-

E & F TAPE OR DISK, WORDPRO CARTRIDGE AND ALL QUICKWRITE WPORDPROCESSOR FILES.

WANTED TO BUY ----------

64K RAM PACKS & VZ200 6K RAM BOARDS - CONTACT JOE LEON
22 DRURY STREET WALLSEND NSW 2287 --- PHONE (049) 51 2756

CLUB MEETINGS ----------

FIRST FRIDAY OF MONTH - NO MEETING IN JANUARY 1990

VENUE - JESMOND NEIGHBOURHOOD CENTRE MORDUE PARADE JESMOND
(REAR STOCKLAND MALL - BIG W)

AUGUST 4 - COMMODORE 64 DEMONSTRATION
SEPTEMBER 1 - VZ DISK DRIVE DEMONSTRATION - MODIFICATIONS - ETC
OCTOBER 6 - SPEECH SYNTHESISER
NOVEMBER 3 - TO BE NOTIFIED IN SEPT/OCT ISSUE # 26
DECEMBER 3 - CHRISTMAS MEETING - BRING FAMILY, FRIENDS & PLATE

FUTURE DEMONSTRATIONS - AUCTION NIGHT - USING THE VZ, RITTY, EPROM BURNER & ERASER, ETC. IF YOU HAVE ANY IDEAS FOR A DEMONSTRATION THEN PLEASE LET US KNOW.

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NOTE :- WHEN WRITING TO ANY ABOVE OR H.V.VZ. USERS' GROUP FOR INFORMATION PLEASE ENCLOSE A S.S.A.E. OR NZ 2 INT. REPLY COUPONS.

FOR SALE E&F W.P.PATCH 3.3 25/17

PATCH 3.3 WRITTEN BY DAVE MITCHELL WILL CONVERT YOUR E & F TAPE WORD PROCESSOR FOR FULL DISK USE WHILE RETAINING ALL ORIGINAL FUNCTIONS. BELOW ARE ADDED DISK COMMANDS & FUNCTIONS :-

LOAD, SAVE, ERASE, RENAME, DIRECTORY, INITIALIZE, UPDATE, DRIVE 1 & 2, SHIFTLOCK & IMBEDDED PRINTER CONTROL CODES PLUS CTRL+P WHICH BYPASSES PRINT MENU AND PRINTS TO SCREEN OR PRINTER. A ROUTINE IS ALSO PROVIDED TO CONVERT YOUR BASIC PROGRAM OR SOURCE CODE FILES INTO WORD PROCESSOR FILES.

PATCH 3.3 HAS PROVISION FOR IMBEDDING PRINTER CONTROL CODES IN TEXT AND FAST SAVING AND LOADING OF TEXT DATA TO AND FROM DISK USING BLOCK SAVE/LOAD TECHNIQUES. PRINTER CONTROL CODES CAN BE SAVED TO TAPE OR DISK.

BSTWP.F - THIS UTILITY PROVIDED WITH PATCH 3.3 WILL CONVERT BASIC PROGRAMS AND ED/ASS. SOURCE CODE FILES INTO WORD PROCESSOR FILES.

SYSTEM REQUIREMENTS - VZ 300 + 16K RAM PACK - VZ 200 + 26K

PATCH 3.3 IS COPYRIGHT TO AND ONLY AVAILABLE FROM :-
HUNTER VALLEY VZ USERS' GROUP P.O.BOX ¶61 JESMOND 2299
N.S.W. AUSTRALIA - PHONE JOE LEON (049) 51 2756

PRICE - AUS/NZ AU$20.00 - UPDATE - AUS-$10.00 - NZ-AU$11.00.
UPDATING AVAILABLE ONLY TO PREVIOUS PURCHASERS OF PATCHES.

FOR MORE INFORMATION WRITE TO H.V.VZ.U.G. ENCLOSING A SSAE.

EXTENDED DOS V1.3 - $15.00

UPDATED VERSION WITH EXTRA COMMANDS ADDED :-

OLD COMMANDS - MERGE, DIRA, LDIRA, DIRB, LDIRB, OLD, OLD., DEC, HEX, STATUSA AND LSTATUSA. STATUSA AND LSTATUSA ALSO WORKS WITH VERSION 1.0 DOS.

NEW COMMANDS :-

MENU - LOADS AND RUNS BINARY OR TEXT MENU PROGRAM FROM DISK.
CODE - SIMPLIFIES USING PRINTER CONTROL CODES DIRECTLY OR FROM WITHIN A PROGRAM.
LTAB - IS FOR SETTING OF LEFT MARGIN.
MOVE - MOVES BASIC FILE FROM DISK TO CHOSEN MEMORY ADDRESS.
UPD - ERASES OLD FILE AND SAVES WITH SAME FILE NAME.

MENU/FILE COPIER - $15.00

THIS UTILITY WILL READ YOUR DISK DIRECTORY AND PRESENT YOU WITH SEVERAL OPTIONS. USING THE CURSOR YOU CAN RUN/BRUN ANY PROGRAM OR SELECT FILE COPY, REN, ERASE, DRIVE 1 OR 2, ETC. BESIDES COPYING TEXT AND BINARY FILES ALL OTHER FILES CAN BE COPIED AS WELL EXEPT FOR DATA FILES.

FOR PURCHASE OR INFORMATION CONTACT DAVE MITCHELL - (079) 27 8519
24 ELPHINSTONE ST. NORTH ROCKHAMPTON QUEENSLAND 4701

FOR INFORMATION OR DEMONSTRATION IN NEWCASTLE AREA CONTACT :-
JOE LEON - (049) 51 2756 - 22 DRURY ST. WALLSEND NSW 2287

COMMERCIAL SOFTWARE FOR D.SMITH VZ 200/300 COLOUR COMPUTER

COMPILED ORIGIONALLY :-
JULY 1986.
UPDATED :-
DECEMBER 1986.
JUNE 1987.
NOVEMBER 1987.
SEPTEMBER 1988.

BY:-
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TO AVOID ALL THE MENTIONED SOFTWARE BEING LOST TO THE FUTURE VZ USER IT WOULD BE AN ADVANTAGE TO HAVE A CENTRAL LIBRARY TO HOLD A COPY OF THESE PROGRAMS SO THAT THEY WOULD BE AVAILABLE WHEN PRESENT SUPPORT IS NO LONGER AVAILABLE. THIS WOULD BE DONE ONLY ONCE COPYRIGHT RESTRICTIONS HAVE PASSED OR WRITERS PERMISSION HAS BEEN OBTAINED. APPROPRIATE CHARGES WOULD THEN BE APPLIED TO COVER EXPENSES OF TAPES OR DISKS AND POSTAGE ETC.

PLEASE ADVISE ME OF YOUR THOUGHTS ON THIS.

I WOULD BE INTERESTED TO HEAR OF ANY NEW OR OLD SOFTWARE THAT IS NOT LISTED SO THIS CATALOGUE CAN BE UPDATED AT REGULAR INTERVALS. PLEASE ADVISE PROGRAM NAME AND ALSO NAME AND ADDRESS OF WRITER / DISTRIBUTOR TO ENABLE CORRECT RECORDS TO BE KEPT.

A NUMBER OF PROGRAMS APPEAR UNDER SEVERAL SUPPLIERS AND ARE SOLD ON BEHALF OF THE ONE WRITER OVER A PERIOD OF YEARS. ALSO SEVERAL DIFFERENT VERSIONS MAY HAVE BEEN AVAILABLE AS THE PROGRAMS ARE IMPROVED AS TIME GOES BY.

SOME SOFTWARE COMPANIES HAVE EITHER CLOSED OR ARE NOW DISTRIBUTING UNDER NEW NAMES.

LYSCO .... STOPPED SELLING VZ SOFTWARE 31ST. JUL 86 BUT NO FURTHER WORD ON NEW DISTRIBUTOR FOR THESE PROGRAMS.

CELESTRON .... ALSO N. SARAFOUDIS. THESE PROGRAMS VERY HARD TO OBTAIN EVEN WITH A PERSONAL APPROACH .

COSMIC ..... APPEARS TO HAVE BEEN TAKEN OVER BY DSE.

R.S.MILLER .... CLOSED DOWN.

J.HIRST .... ALSO TRADED AS HI-COM SOFTWARE.

BJELIC .... MOST OF THIS SOFTWARE APPEARS TO BE PIRATE COPIES.

VDU SOFTWARE .... IT HAS CLOSED DOWN IT'S SOFTWARE COMPANY ALTHOUGH THE USER GROUP IS STILL KEEP OPERATING.

CORRECTION .... VSW PROGRAM LISTED AS FLIGHTDECK APPEARS TO BE INCORRECT NAME FOR AIR TRAFFIC CONTROLLER.

SOFTWARE LIST CONTINUED 25/15

PROGRAM NAME	PROGRAM DISTRIBUTOR
GAMES PROGRAMS	
SNAKE MAZE	LOW
AIR TRAFFIC CONTROLLER	DSE
ASTEROIDS	DSE
ATTACK KILLER TOMATO	DSE
BACKGAMMON	DSE
BIORYTHM	DSE
BLACKJACK	DSE
CHECKERS	DSE
CHESS	DSE
CIRCUS	DSE
CRASH	DSE
DAWN PATROL	DSE
DEFENCE PENETRATOR	DSE
DIAMOND POKER MACHINE	DSE
DIGOUT	DSE
DRACULA'S CASTLE	DSE
DUEL	DSE
DYNASTY DERBY	DSE
FORMULA ONE	DSE
GALAXON	DSE
GHOST HUNTER	DSE
HAMBURGER SAM	DSE
HANGMAN	DSE
HOPPY	DSE
HORSE/RABBIT RACING	DSE
INVADERS	DSE
KAMAKAZI	DSE
KNIGHTS & DRAGONS	DSE
LADDER CHALLENGE	DSE
LEARJET	DSE
LUNAR LANDER (LASER)	DSE
LUNAR LANDER (VZ300)	DSE
MATCHBOX	DSE
MAZE OF ARGON	DSE
MISSILE ATTACK	DSE
OTHELLO	DSE
PENGUIN	DSE
PHAROAH'S CURSE	DSE
PLANET PATROL	DSE
POKER	DSE
SLOT MACH/RUSSIAN ROU	DSE
SPACE RAM	DSE
STAR BLASTER	DSE
SUPER SNAKE	DSE
TENNIS	DSE
TENNIS / GOLF LESSON	DSE
TOTE RACING	DSE
VZ-PANIC	DSE
ADVENTURE ISLAND	LYS
ALIEN ESCAPE	LYS
ALIEN RAIN	LYS
ASTEROID FIELD	LYS

PROGRAM NAME	PROGRAM DISTRIBUTOR
BEAT THE BUG	LYS
CASTLE	LYS
CAVERNS OF VENUS	LYS
CITY BLITZ	LYS
CONVOY	LYS
CUB SCOUT	LYS
ENCHANTED PRINCESS	LYS
GOLDMINE ADVENTURE	LYS
GRAPHIC GOLF	LYS
HAUNTED HOUSE	LYS
LAND OF SCROD	LYS
LITTLE PACKER	LYS
LOST SWORD	LYS
MELBOURNE CUP	LYS
MOUSETRAP	LYS
PHAROAH'S TOMB	LYS
PYRAMID ADVENTURE	LYS
RUSSIAN ROULETTE	LYS
SLOT MACHINE	LYS
TEN PIN BOWLING	LYS
TRIFFIDS : 2040 AD	LYS
TWO UP	LYS
UFO'S	LYS
VZ STAR TREK	LYS
VZ STAR TREK II	LYS
YAHTZEE	LYS
BOSKONE ALERT	COS
DEFENCE PENETRATOR	COS
MORGOTH	COS
RALLY RACER	COS
ROAD WARRIOR	COS
AIR TRAFFIC CONTROLLER	VSW
BLACKJACK	VSW
ESCAPE RIVER	VSW
FACTORY	VSW
FLIGHT DECK	VSW
FLYING SAUCER	VSW
HAUNTED MANSION	VSW
LEARJET	VSW
MANSION / NOVA	VSW
MONOPOLY VZ	VSW
POKER MACHINE	VSW
SCOTLAND YARD	VSW
TRIVIAL CULT	VSW
WORD SQUARES	VSW
BIORYTHM	MIL
PAK MAN	MIL
SUPER INVADERS	MIL
AIRLOCKS MAZE	CEL
BATTLE GALAXY	CEL
BATTLE OF VIETNAM	CEL
CATACLYSM CATAPILLAR	CEL

SOFTWARE LIST CONTINUED 25/16

CONAN THE BARBARIAN	CEL
GALACTIC FIGHTER	CEL
GHOULBUSTERS	CEL
JAILHOUSE BREAKOUT	CEL
LUNAR LANDERS 2020	CEL
MINATOUR PERILESS	CEL
REACTOR DDESTRUCTION	CEL
ROYAL POKER	CEL
THERMONUCLEAR WAR	CEL
TITANIUM TRIOLOGY	CEL
3D MERCILESS MAZE	CEL
GOLF	CAR
SKIING	CAR
STAR PILOT	CAR
TARGET	CAR
ASTRO SAVE	TAI
BRIGHT IDEA	TAI
CAVERN CHAOS	TAI
CIRCUITRY	TAI
CROSS OVER	TAI
ENERVAC	TAI
FLAG CLIMBER	TAI
FIGHTER	TAI
FUSE	TAI
GHOSTLY MAZE	TAI
GRAVE DIGGER	TAI
HUNTER	TAI
MISSILE SAFE	TAI
MOWER MANIA	TAI
PATTERN GUESS	TAI
PHANTOM DRIVER	TAI
PIANO SONGS	TAI
SAVE ME	TAI
SHARK BAIT	TAI
SHOOT	TAI
SNAKE	TAI
SNAKE TRAILS	TAI
SNAKE TRAP	TAI
THREE HUNDRED	TAI
WORD TEASER	TAI
ENCHANTED PRINCESS	McC
HI - JINKS	McC
GAMBLERS PACK	McC
GRAPHIC GOLF	McC
SULTANS PALACE	McC
TEN PIN BOWLING	McC
VZ RACER	McC
STAR TREKER	APE
THE LOST CROWN	APE
BLACKJACK ROYALE	VDU
CASTLE GREYSTONE	VDU
FBI 2001	VDU
GALCTIC EMPIRES	VDU
HAUNTED MANSION	VDU
KNIGHTS QUEST	VDU
SCOTLAND YARD	VDU
SNAKE DUEL	VDU
STELLAR WARS	VDU
TRIVIAL CULT	VDU
VZ MONOPOLY	VDU
AIR TRAFFIC CONTROLLER	LAS
BUST OUT	LAS
COSMIC RESCUE	LAS
ESCAPE RIVER	LAS
KENO	LAS
LEARJET	LAS
LIGHT PEN PUZZLE	LAS
MAGNUM QUEST	LAS
SOLO BATTLESHIPS	LAS
3D MAZE	LAS
VZ WERM	LAS
TEACHER ZAPPER	SOR
DRACULA'S MAZE	BNE
OCTAPUS	BNE
BASE DEFENDER	LYO
MEMORY	LYO
TO THE HILLS	LYO
GRAPHICS 1	LYO
GRAPHICS 2	LYO
KRICHON	LYO
RALLY	LYO
DRAW	LYO
VENTURE	LYO
AIR TRAFFIC CONTROLLER	BJE
ASTEROIDS	BJE
BLACKJACK	BJE
CHECKERS	BJE
CIRCUS	BJE
DEFENCE PENETRATOR	BJE
GALAZIAN ADVENTURE	BJE
GHOST HUNTER	BJE
GOLF LESSON	BJE
HANGMAN	BJE
HOPPY	BJE
INVADERS	BJE
KNIGHTS & DRAGONS	BJE
LADDER CHALLENGE	BJE
LEARJET	BJE
PANIC	BJE
PLANET PATROL	BJE
POKER	BJE
RALLY X	BJE
STAR BLASTER	BJE
SUPER SNAKE	BJE
TENNIS	BJE

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EDUCATIONAL PROGRAMS

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ELEMENTRY GEOMETRY	DSE
FLASHCARD 1 & 2	DSE
FLASHCARD 3 & 4	DSE
MATHS ARMADA	DSE
METRIC SPYCATCHER	DSE
MUSIC WRITER	DSE

SOFTWARE LIST CONTINUED 25/17

SPEED READING	DSE
STATISTICS I	DSE
STATISTICS II	DSE
SPELLOMATIC 1 & 2	DSE
SPELLOMATIC 3 & 4	DSE
TYPING TEACHER	DSE
WHIZKID SPYCATCH	DSE
WORD MATCHING	DSE
SPEED & ACCURACY	LYS
STUDY AID	LYS
BLOCK PUZZLER	VSW
CAMPING	VSW
COORDINATES	VSW
EDUDISK	VSW
EUROPEAN CAPITALS	VSW
KEYBOARD	VSW
MATHS COUNTDOWN	VSW
MATHS	VSW
MEATPIES	VSW
MICROSCOPE	VSW
NAME THE TOWNS	VSW
PLUS & MINUS	VSW
QUEENSLAND	VSW
TOWER OF HANOI	VSW
WORDMATCHING	VSW
RADIOMAN PACK	HIR
PARENT/TEACHER PACK	HIR
MORSE CODE	MIL
CODE MAKER/BREAK	McC
MATHS PACK	McC
NUMBER CHALLENGE	McC
WORD CHALLENGE	McC
BLOCK PUZZLER	LAS
COORDINATE	LAS
EDUDISK	LAS
KEYBOARD	LAS
MATHS COUNTDOWN	LAS
MEATPIES	LAS
MICROSCOPE	LAS
NAME THE TOWNS	LAS
SNERTLE	LAS
TOWER OF HANOI	LAS
TYPE TEACHER	BNE

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BUSINESS PROGRAMS

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DATABASE	DSE
DISCOUNTED CASHFLOW	DSE
FINANCIAL CASHFLOW	DSE
MAILING LIST	DSE
MATRIX	DSE
PORTFOLIO MANAGEMENT	DSE
WORD PROCESSOR	DSE
CARD FILE	LYS
CHECK RECORD	LYS
DECISION EVALULATOR	LYS
LEMONADE STAND	LYS
MASTER FINANCE	LYS
METRIC CONVERSIONS	LYS
RACING SELECTOR	LYS
CASH BOOK LEDGER	VSW
CHEQUE LEDGER	VSW
DATABASE VZ	VSW
LE'VZ D'BASE	VSW
LE'VZ STATEMENT	VSW
MAILING LIST	VSW
QUICKWRITE	VSW
LASER CALC	LAS
MARK 64 DATABASE	LAS
ADDRESS BOOK	DAW
DATA MASTER	DAW
WORD PROCESSOR	DAW
ELECTRONIC AID	APE
FINANCE HELPER	APE
MATRIX UTILITIES	APE
SUPER WORD PROCESSOR	BRO
VZ DATABASE	VDU
P.I.N. NBR. FILE	BNE

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UTILITY PROGRAMS

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DISASSEMBLER	DSE
EDITOR ASSEMBLER	DSE
HEX UTILITIES	DSE
INTRO. TO BASIC	DSE — WANT TO SEE
SPRITE GENERATOR	DSE
VZ-MON 80	LYS
HACKERS DELIGHT	CEL
PROGRAM COPIER	CEL
SCREEN DRAWER	CEL
ARRAY / RESTORE	VSW
CMERGE/DELETE/RENUM	VSW
COLOUR GRAPHICS	VSW
COPY / PROTECT	VSW
DISASSEMBLER	VSW
DISC GUARD	VSW
DISK COPY	VSW
DISK OPS 1	VSW
DISK OPS 2	VSW
EDITOR ASSEMBLER	VSW
EXTENDED BASIC (W.O.)	VSW
FILE SEARCH	VSW
LOAD XX80 FILES	VSW
MONITOR / DEBUGGER	VSW
PROTECT	VSW
SEARCH TAPE	VSW
OPS 4	VSW

SOFTWARE LIST CONTINUED 25/18

UTILITYS	VSW
VZ EPSON PRINTER PATCH	VSW
VZ EXTENDED BASIC(S.O.)	VSW
WEAVING DRAFTS	VSW
VZ DEBUG	MIL
GRAPHICS PACK	MIL
ART GALLERY	LAS
COLOUR HARDCOPY	LAS
COPY/PROTECT	LAS
DISKGUARD	LAS
DISK TOOL KIT	LAS
DISASSEMBLER	LAS
DSE WORD PRO PATCH	LAS
EDITOR/ASSEMBLER DISK	LAS
EPSON PRINTER PATCH	LAS
EXTENDED BASIC (G.W.)	LAS
FAST DISK & MENU	LAS
FILESEARCH	LAS
MAGIC PAINT	LAS
VZ BASIC COMPILER	LAS
VZ CONVERT	LAS
ED FASTDISK	LAS
COLOUR GRAPHICS	PAM
MONITOR / DEBUGGER	WOB
RENUMBER / MERGE	WOB
VZ EXTRA COMMANDS	LEH
DISK MENU	BNE
POSTER SHOP	BNE
ART GALLERY	BNE
TAPE I.D.	BNE
TAPE / DISK LIST	BNE
PROGRAM COPIER	SAR
RETRIEVAL PROGRAM	BRO
COPIER	SUN
VZ CHIP 8	GRI
GRAF STAR	VDU
NAME STAR	VDU
SHOP STAR	VDU
SCREEN ED	MTS
E+F WP DISK PATCH	HVG

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SOFTWARE DISTRIBUTORS DECODING

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APE	APE SOFTWARE
BJE	S.BJELIC
BNE	BRISBANE VZ WORKSHOP
BRO	G.BROWELL
CAR	ADAM CARTER
CEL	CELESTRON
COS	COSMIC
DAW	L.DAWSON
DSE	DICK SMITH ELECTRONIC
GRI	GRIFFIN
HIR	J.HIRST
HVG	HUNTER VALLEY VZ GRP
LAS	LASERLINK
LEH	G.LEHMAN
LOW	B.LOW
LYO	R.LYONS
LYS	LYSCO
McC	G.McCLEARY
MIL	R.S.MILLER
MTS	M. TAYLOR SOFTWARE
PAM	PAM SOFTWARE
RHO	C.RHODES
SAR	N.SARAFOUDIS
SOR	J.SORTLAND
SUN	E.SUNDSTRUP
TAI	L.TAIT
VDU	VZ DOWN UNDER
VSW	VSOFTWAREZ
WOB	W.OBRIST